

More than 100 years of experience in rope testing

DMT Rope Testing Centre



MRT on heavy-lifting marine vessels



Heavy-lifting cranes on board

Steel ropes are used on seagoing vessels for any of a number of purposes. They are, for instance, fitted to cranes to hoist and move loads. They may be used on winches below deck to lay pipe and for construction work in deepwater fields.

In the latter case the ropes are usually several kilometres long. Every effort has to be taken to avoid having to replace the rope while the project is in progress and to prevent early, non-scheduled discards due to rope failures. You can avoid such situations by employing magnetic rope testing (MRT) in due time.

Our services comprise:

- MRT of new ropes:
 - base traces during manufacturing or installation
- MRT of ropes in the field:
 - after specified periods in service or following maintenance

This testing procedure makes it possible to identify damage in the form of wire breaks, wear and corrosion in ropes up to 150 mm in diameter. The inspection findings are used to determine the condition of the rope in terms of its load bearing capacity. Regular testing helps to compile a damage register and, based on the known real lifting performance, the results can be used to predict the remaining service life and to schedule rope changes.

Different types of magnetic rope testing equipment



What sets us apart from the rest

Our testing facility can draw upon more than one hundred years of experience.

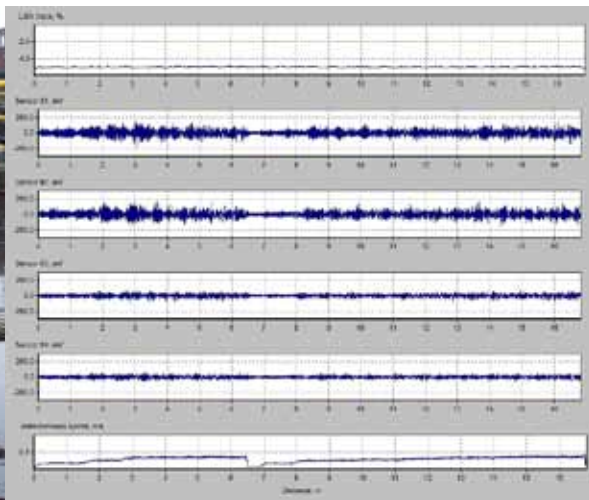
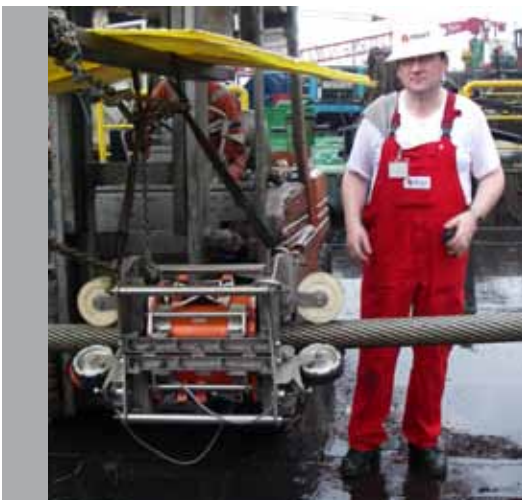
Our services cover a rope's entire life cycle. We can begin by monitoring manufacturing operations, using mechanical testing at up to 20 MN breaking load, and continue with on-site NDT inspections with the rope installed and in place. We can even conduct damage analyses for ropes that have failed.

Here we track down damage and dismantle the rope, studying each single wire, the lubricant situation, and the corrosion and wear status. Thus we

determine the reason for the breakdown: faulty material, improper use and nearly every incident a rope can experience.

Electromagnetic rope testing equipment was first developed in the 1930s, at our Rope Testing Centre. In the many years since those early days we have continuously refined and developed electromagnetic and magneto-inductive test equipment.

This is what sets us apart from the rest!



Left:
Magnetic testing
on rope in the field

Right:
Recorded tracings

Our services for all rope testing requirements comprise:

- MRT for new ropes
- MRT for ropes in the field
- Single wire testing
- Damage analyses
- Mechanical and technological determination of properties in our Rope Testing Centre:
 - Determination of tensile strength up to 20 MN
 - Determination of rope moduli of elasticity
 - Torque analysis
 - Fatigue test
 - Creep test

We are accredited by:

Lloyd's Register

DMT GmbH & Co. KG, Mining Service,
Bochum, Germany:

Recognised proving establishment for
anchoring and mooring equipment

DAP (Deutsches Akkreditierungssystem Prüfwesen GmbH)

DMT GmbH & Co. KG, DMT Laboratory for
Non-Destructive and Destructive Testing

-Rope Testing Centre-, Bochum, Germany:

For manual non-destructive testing (UT, MT, PT,
VT, magneto-inductive testing) and mechanical
testing of metallic and non-metallic materials

SQS (Swiss Association for Quality and Management Systems)

DMT GmbH & Co. KG in Bochum, Germany:

Quality management system for consultancy,
exploration of raw materials, geoengineering,
expert appraisals, research and development,
testing and training.

The QMS complies with DIN EN 9001:2008.

DMT GmbH & Co. KG
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